

***Investigating Oceanography, 3e* (Sverdrup)**

Chapter 1 The Water Planet

1) Identify all of the planets that are rich in metals and rocky materials.

- A) Saturn
- B) Mercury
- C) Venus
- D) Uranus
- E) Jupiter
- F) Earth
- G) Neptune
- H) Mars

Answer: B, C, F, H

Section: 01.01 Cosmic Beginnings

Topic: Cosmic Beginnings

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

2) Identify all of the planets that are rich in ices of water, ammonia, and methane.

- A) Saturn
- B) Mercury
- C) Venus
- D) Uranus
- E) Jupiter
- F) Earth
- G) Neptune
- H) Mars

Answer: A, D, E, G

Section: 01.01 Cosmic Beginnings

Topic: Cosmic Beginnings

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

3) If the axial rotation of Earth slowed, the day-to-night temperature variation on Earth's surface would decrease.

Answer: FALSE

Section: 01.02 Earth's Age and Time

Topic: Earth's Age and Time

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

4) Radiometric dating is based on the rate at which a radioactive isotope decays.

Answer: TRUE

Section: 01.02 Earth's Age and Time

Topic: Earth's Age and Time

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

5) When viewed from above the South Pole, Earth rotates clockwise.

Answer: TRUE

Section: 01.04 Where on Earth Are You?

Topic: Where on Earth Are You?

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

6) When crossing the international date line from east to west, the date increases by one day.

Answer: TRUE

Section: 01.04 Where on Earth Are You?

Topic: Where on Earth Are You?

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

7) Determination of the latitude requires that the time be kept very accurately.

Answer: FALSE

Section: 01.04 Where on Earth Are You?

Topic: Where on Earth Are You?

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

8) All latitude circles are great circles.

Answer: FALSE

Section: 01.04 Where on Earth Are You?

Topic: Where on Earth Are You?

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

9) Earth turns westward as it rotates on its axis.

Answer: FALSE

Section: 01.04 Where on Earth Are You?

Topic: Where on Earth Are You?

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

10) The residence time of water in the atmosphere is equal to the residence time of water in the oceans.

Answer: FALSE

Section: 01.06 Earth Is a Water Planet

Topic: Earth Is a Water Planet

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

11) The hydrologic cycle requires an excess of evaporation over precipitation as averaged over the world's oceans.

Answer: TRUE

Section: 01.06 Earth Is a Water Planet

Topic: Earth Is a Water Planet

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

12) The middle latitudes in the Northern Hemisphere have about equal areas devoted to both land and water.

Answer: TRUE

Section: 01.06 Earth Is a Water Planet

Topic: Earth Is a Water Planet

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

13) The sidereal day is more constant and shorter than the solar day.

Answer: TRUE

Section: 01.02 Earth's Age and Time

Topic: Earth's Age and Time

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

14) Mercury, Venus, Earth, and Mars are smaller in size and closer to the Sun than Jupiter, Saturn, Uranus, or Neptune.

Answer: TRUE

Section: 01.01 Cosmic Beginnings

Topic: Cosmic Beginnings

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

15) There is more land located in the Northern Hemisphere than in the Southern Hemisphere.

Answer: TRUE

Section: 01.06 Earth Is a Water Planet

Topic: Earth Is a Water Planet

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

16) Water is moved through the hydrologic cycle at different rates and in different directions in each climate zone.

Answer: TRUE

Section: 01.06 Earth Is a Water Planet

Topic: Earth Is a Water Planet

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

17) Our solar system is part of the Milky Way galaxy.

Answer: TRUE

Section: 01.01 Cosmic Beginnings

Topic: Cosmic Beginnings

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

18) The Milky Way galaxy formed from an expanding nebula.

Answer: FALSE

Section: 01.01 Cosmic Beginnings

Topic: Cosmic Beginnings

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

19) The Milky Way galaxy contains about 200 billion stars.

Answer: TRUE

Section: 01.01 Cosmic Beginnings

Topic: Cosmic Beginnings

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

20) Earth rotates on its axis from west to east.

Answer: TRUE

Section: 01.04 Where on Earth Are You?

Topic: Where on Earth Are You?

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

21) On average, water in a river will have a longer residence time than water in the oceans.

Answer: FALSE

Section: 01.06 Earth Is a Water Planet

Topic: Earth Is a Water Planet

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

22) The magnetic field surrounding Jupiter's moons may be the result of salt water bodies.

Answer: TRUE

Section: 01.01 Cosmic Beginnings

Topic: Cosmic Beginnings

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

23) If a sea exists on Jupiter's moon Europa, it is probably much smaller and shallower than the Earth's ocean.

Answer: FALSE
Section: 01.01 Cosmic Beginnings
Topic: Cosmic Beginnings
Bloom's: 1. Remember
Gradable: automatic
Chapter: 01 The Water Planet

24) There is no evidence of a past or present ocean on any planet but Earth.

Answer: FALSE
Section: 01.01 Cosmic Beginnings
Topic: Cosmic Beginnings
Bloom's: 1. Remember
Gradable: automatic
Chapter: 01 The Water Planet

25) Free oxygen was a common constituent of the Earth's early atmosphere.

Answer: FALSE
Section: 01.01 Cosmic Beginnings
Topic: Cosmic Beginnings
Bloom's: 1. Remember
Gradable: automatic
Chapter: 01 The Water Planet

26) On the autumnal equinox, every place on Earth experiences 12 hours of daylight and 12 hours of darkness.

Answer: TRUE
Section: 01.02 Earth's Age and Time
Topic: Earth's Age and Time
Bloom's: 1. Remember
Gradable: automatic
Chapter: 01 The Water Planet

27) Lines of latitude are known as meridians.

Answer: FALSE
Section: 01.04 Where on Earth Are You?
Topic: Where on Earth Are You?
Bloom's: 1. Remember
Gradable: automatic
Chapter: 01 The Water Planet

28) Planets exist outside of our solar system.

Answer: TRUE

Section: 01.01 Cosmic Beginnings

Topic: Cosmic Beginnings

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

29) A cluster rarely contains more than 10 galaxies.

Answer: FALSE

Section: 01.01 Cosmic Beginnings

Topic: Cosmic Beginnings

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

30) Earth's age is estimated at _____ years.

A) 4.6×10^6

B) 3.7×10^6

C) 4.6×10^9

D) 3.7×10^9

E) 4.6×10^{12}

Answer: C

Section: 01.01 Cosmic Beginnings

Topic: Cosmic Beginnings

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

31) The mean radius of Earth is _____ meters.

A) 3.371×10^2

B) 6.371×10^4

C) 6.371×10^6

D) 12.742×10^6

E) 12.742×10^9

Answer: C

Section: 01.03 Earth's Shape

Topic: Earth's Shape

Bloom's: 1. Remember
Gradable: automatic
Chapter: 01 The Water Planet

- 32) The mean surface temperature of Earth is about _____.
- A) 5°C
 - B) 10°C
 - C) 16°C
 - D) 22°C
 - E) 26°C

Answer: C
Section: 01.06 Earth Is a Water Planet
Topic: Earth Is a Water Planet
Bloom's: 1. Remember
Gradable: automatic
Chapter: 01 The Water Planet

- 33) The Big Bang occurred roughly _____ years ago.
- A) 4.6 billion
 - B) 250 million
 - C) 13 billion
 - D) 10 billion
 - E) 750 million

Answer: C
Section: 01.01 Cosmic Beginnings
Topic: Cosmic Beginnings
Bloom's: 1. Remember
Gradable: automatic
Chapter: 01 The Water Planet

- 34) The Tropic of Capricorn is at _____ latitude.
- A) 23½°N
 - B) 23½°S
 - C) 66½°N
 - D) 66½°S
 - E) 0°

Answer: B
Section: 01.02 Earth's Age and Time
Topic: Earth's Age and Time
Bloom's: 1. Remember
Gradable: automatic
Chapter: 01 The Water Planet

35) Earth is the _____ planet from the Sun.

- A) first
- B) second
- C) third
- D) fourth
- E) fifth

Answer: C

Section: 01.01 Cosmic Beginnings

Topic: Cosmic Beginnings

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

36) The Arctic and Antarctic Circles are displaced _____ degrees from their respective poles.

- A) 90
- B) $66\frac{1}{2}$
- C) 45
- D) $23\frac{1}{2}$
- E) 0

Answer: D

Section: 01.04 Where on Earth Are You?

Topic: Where on Earth Are You?

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

37) During the Northern Hemisphere's summer solstice, the Sun stands above _____.

- A) $23\frac{1}{2}^{\circ}\text{N}$
- B) $23\frac{1}{2}^{\circ}\text{S}$
- C) 0°
- D) $66\frac{1}{2}^{\circ}\text{N}$
- E) $66\frac{1}{2}^{\circ}\text{S}$

Answer: A

Section: 01.02 Earth's Age and Time

Topic: Earth's Age and Time

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

- 38) The area north of $66\frac{1}{2}^{\circ}\text{N}$ is in darkness when the Sun is directly _____.
A) over the Equator
B) over $23\frac{1}{2}^{\circ}\text{N}$
C) over $23\frac{1}{2}^{\circ}\text{S}$
D) at the Arctic Circle
E) at the Antarctic Circle

Answer: C

Section: 01.02 Earth's Age and Time

Topic: Earth's Age and Time

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

- 39) The Sun stands directly above the equator _____.
A) once each year
B) twice each year
C) once in midwinter (Northern Hemisphere)
D) once in midsummer (Northern Hemisphere)
E) None of these is correct.

Answer: B

Section: 01.02 Earth's Age and Time

Topic: Earth's Age and Time

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

- 40) Which circle of latitude or longitude has the smallest circumference?
A) the Equator
B) 30°N
C) the Prime Meridian
D) 45°W
E) 80°S

Answer: E

Section: 01.04 Where on Earth Are You?

Topic: Where on Earth Are You?

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

- 41) Longitude is given in degrees _____.
A) east and west of the Equator
B) north and south of the Equator
C) east and west of the Prime Meridian
D) north and south of the Prime Meridian
E) None of these is correct; longitude is not measured in degrees.

Answer: C

Section: 01.04 Where on Earth Are You?

Topic: Where on Earth Are You?

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

- 42) A great circle can be described as _____.
A) having its center at Earth's center
B) being the shortest path between two points on Earth's surface
C) always being a straight line on an equatorial cylindrical projection
D) having its center at Earth's center and being the shortest path between two points on Earth's surface
E) All of these are correct.

Answer: D

Section: 01.04 Where on Earth Are You?

Topic: Where on Earth Are You?

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

- 43) One degree of latitude is about equal to _____.
A) 1 nautical mile
B) 1 land mile
C) 60 nautical miles
D) 60 land miles
E) 600 nautical miles

Answer: C

Section: 01.04 Where on Earth Are You?

Topic: Where on Earth Are You?

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

- 44) Earth turns on its axis about _____.
- A) 1 degree in 4 minutes
 - B) 4 degrees in 1 minute
 - C) 4 degrees in 1 hour
 - D) 15 degrees in 1 minute
 - E) 30 degrees in 1 hour

Answer: A

Section: 01.04 Where on Earth Are You?

Topic: Where on Earth Are You?

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

- 45) An error in time of 2 minutes in determining longitude from local time and Greenwich Mean Time will cause a _____ error in longitude.
- A) 2 degree
 - B) 1 degree
 - C) 0.75 degree
 - D) 0.50 degree
 - E) 0.25 degree

Answer: D

Section: 01.04 Where on Earth Are You?

Topic: Where on Earth Are You?

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

- 46) If a clock is set to Greenwich Mean Time and the Sun is observed to reach its zenith at 10:00 A.M., what is the longitude?
- A) 45°E
 - B) 45°W
 - C) 30°E
 - D) 30°W
 - E) 0°

Answer: C

Section: 01.04 Where on Earth Are You?

Topic: Where on Earth Are You?

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

- 47) A time zone is approximately _____ degrees wide.
- A) 5
 - B) 15
 - C) 90
 - D) 180
 - E) 365

Answer: B

Section: 01.04 Where on Earth Are You?

Topic: Where on Earth Are You?

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

- 48) Water covers _____ percent of Earth's surface.
- A) 17
 - B) 29
 - C) 50
 - D) 71
 - E) 78

Answer: D

Section: 01.06 Earth Is a Water Planet

Topic: Earth Is a Water Planet

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

- 49) The residence time for water in any of Earth's principal reservoirs can be calculated by dividing _____.
- A) reservoir volume by rate of water supply
 - B) rate of water removal by reservoir volume
 - C) rate of water removal by water supply
 - D) None of these is correct.
 - E) reservoir volume by rate of water supply, rate of water removal by reservoir volume, and rate of water removal by water supply

Answer: A

Section: 01.06 Earth Is a Water Planet

Topic: Earth Is a Water Planet

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

50) The average depth of the ocean is about _____.

- A) 3800 m
- B) 3900 km
- C) 3800 mi
- D) 11,000 m
- E) 11,000 mi

Answer: A

Section: 01.06 Earth Is a Water Planet

Topic: Earth Is a Water Planet

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

51) Relationships between oceanic depths or land elevations and Earth's area are shown on a _____.

- A) Mercator projection
- B) bathymetric chart
- C) hypsographic curve
- D) navigational chart
- E) None of these is correct.

Answer: C

Section: 01.06 Earth Is a Water Planet

Topic: Earth Is a Water Planet

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

52) An area drawn on a hypsographic curve equates to a(n) _____.

- A) area of the Earth
- B) volume of land or water
- C) mean elevation or depth
- D) All of these are correct.
- E) None of these is correct.

Answer: B

Section: 01.06 Earth Is a Water Planet

Topic: Earth Is a Water Planet

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

53) How many hours must be added to New York City's Eastern daylight time to obtain Greenwich Mean Time or Universal Time?

- A) +5
- B) -5
- C) +4
- D) -4
- E) +3

Answer: C

Section: 01.04 Where on Earth Are You?

Topic: Where on Earth Are You?

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

54) If a clock set to Greenwich Mean Time or Universal Time is moved to a location where noon, according to the Sun, occurs at 4:30 P.M. clock time, what is the longitude of the clock?

- A) 67.5°W
- B) 67.5°E
- C) 43.0°E
- D) 43.0°W
- E) 0.0° longitude

Answer: A

Section: 01.04 Where on Earth Are You?

Topic: Where on Earth Are You?

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

55) The U.S. Global Positioning System (GPS) is used to _____.

- A) determine latitude and longitude
- B) measure altitude
- C) position storms, currents, and tides
- D) determine latitude and longitude and measure altitude
- E) determine latitude and longitude, measure altitude, and position storms, currents, and tides

Answer: E

Section: 01.05 Modern Navigation

Topic: Modern Navigation

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

56) At what latitude is the Sun directly overhead on the June Solstice?

- A) Tropic of Cancer
- B) Tropic of Capricorn
- C) Equator
- D) Arctic Circle
- E) Antarctic Circle

Answer: A

Section: 01.02 Earth's Age and Time

Topic: Earth's Age and Time

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

57) Which ocean basin is located primarily in the Southern Hemisphere?

- A) Pacific
- B) Atlantic
- C) Indian
- D) Arctic
- E) None of these is correct.

Answer: C

Section: 01.06 Earth Is a Water Planet

Topic: Earth Is a Water Planet

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

58) Which ocean basin is the deepest on average?

- A) Pacific
- B) Atlantic
- C) Indian
- D) Arctic
- E) None of these is correct.

Answer: A

Section: 01.06 Earth Is a Water Planet

Topic: Earth Is a Water Planet

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

59) Which ocean basin is the largest?

- A) Pacific
- B) Atlantic
- C) Indian
- D) Arctic
- E) None of these is correct.

Answer: A

Section: 01.06 Earth Is a Water Planet

Topic: Earth Is a Water Planet

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

60) Which of the following factor(s) enable(s) the existence of liquid water on the Earth's surface?

- A) Earth's solar orbit
- B) Rotation of the Earth on its axis
- C) The Earth's atmospheric gases
- D) Earth's solar orbit and the Earth's atmospheric gases
- E) All of these are correct.

Answer: E

Section: 01.06 Earth Is a Water Planet

Topic: Earth Is a Water Planet

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

61) Approximately what percentage of water on Earth is contained within the oceans?

- A) 12%
- B) 31%
- C) 52%
- D) 85%
- E) 97%

Answer: E

Section: 01.06 Earth Is a Water Planet

Topic: Earth Is a Water Planet

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

62) How long does it take for the Earth to make one rotation on its axis?

- A) 60 seconds
- B) 1 hour
- C) 24 hours
- D) 30 days
- E) 365 days

Answer: C

Section: 01.02 Earth's Age and Time

Topic: Earth's Age and Time

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

63) How long does it take for Earth to make one revolution around the Sun?

- A) 60 seconds
- B) 1 hour
- C) 24 hours
- D) 30 days
- E) 365 days

Answer: E

Section: 01.02 Earth's Age and Time

Topic: Earth's Age and Time

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

64) What type of material is thought to explain the larger size of the outer planets relative to the inner planets?

- A) rock
- B) ice
- C) metals
- D) liquid water
- E) None of these is correct.

Answer: B

Section: 01.01 Cosmic Beginnings

Topic: Cosmic Beginnings

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

65) Approximately what percentage of gas emitted by volcanoes is water vapor?

- A) 1%
- B) 10%
- C) 25%
- D) 45%
- E) 70%

Answer: E

Section: 01.01 Cosmic Beginnings

Topic: Cosmic Beginnings

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

66) The South Pole is tilted toward the Sun on what day?

- A) March Equinox
- B) June Solstice
- C) September Equinox
- D) December Solstice
- E) All of these are correct.

Answer: D

Section: 01.02 Earth's Age and Time

Topic: Earth's Age and Time

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

67) Why are meteorites used to establish an age for the Earth?

- A) They are believed to be the same material from which Earth formed.
- B) They are not radiogenic so they do not decay over time.
- C) Rocks on Earth have been recycled since the Earth was formed and are not believed to be as old as the Earth itself.
- D) They are believed to be the same material from which Earth formed and rocks on Earth have been recycled since the Earth was formed and are not believed to be as old as the Earth itself.
- E) All of these are correct.

Answer: D

Section: 01.02 Earth's Age and Time

Topic: Earth's Age and Time

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

68) Roughly what percentage of matter in the universe is identical to the type of matter that comprises the planets and stars?

- A) 65%
- B) 50%
- C) 25%
- D) 5%
- E) 1%

Answer: D

Section: 01.01 Cosmic Beginnings

Topic: Cosmic Beginnings

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

69) Arrange the following life forms in their order of appearance on Earth from first to appear to last to appear.

- A) reptiles, dinosaurs, fishes, birds, flowering plants
- B) fishes, reptiles, dinosaurs, birds, flowering plants
- C) flowering plants, reptiles, fishes, dinosaurs, birds
- D) birds, flowering plants, reptiles, dinosaurs, fishes
- E) dinosaurs, reptiles, flowering plants, fishes, birds

Answer: B

Section: 01.02 Earth's Age and Time

Topic: Earth's Age and Time

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

70) What percent of a parent radioactive element would remain after three half-lives of decay to its daughter isotope?

- A) 75
- B) 50
- C) 25
- D) 12.5
- E) 6.25

Answer: D

Section: 01.02 Earth's Age and Time

Topic: Earth's Age and Time

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

71) The greatest mass extinction of all time, resulting in the disappearance of 96% of all species, occurred roughly _____ million years ago.

- A) 252
- B) 201
- C) 66
- D) 45
- E) 12

Answer: A

Section: 01.02 Earth's Age and Time

Topic: Earth's Age and Time

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

72) The International Hydrographic Organization defined the northern boundary of the Southern Ocean to be _____.

- A) 80°S
- B) 45°S
- C) 70°S
- D) 30°S
- E) 60°S

Answer: E

Section: 01.06 Earth Is a Water Planet

Topic: Earth Is a Water Planet

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

73) Earth's surface is protected from extreme temperature change and water loss by _____.

- A) its orbital distance from the Sun
- B) its atmosphere
- C) its period of rotation
- D) All of these are correct.
- E) None of these is correct.

Answer: D

Section: 01.02 Earth's Age and Time

Topic: Earth's Age and Time

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

74) Earth formed shortly after the Big Bang.

Answer: FALSE

Section: 01.01 Cosmic Beginnings

Topic: Cosmic Beginnings

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

75) More fresh water is stored in ice caps and glaciers than in freshwater lakes.

Answer: TRUE

Section: 01.06 Earth Is a Water Planet

Topic: Earth Is a Water Planet

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

76) Most of the water evaporated from the oceans returns directly to the oceans in precipitation.

Answer: TRUE

Section: 01.06 Earth Is a Water Planet

Topic: Earth Is a Water Planet

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

77) Earth maintains a constant distance from the Sun as it moves in its orbit.

Answer: FALSE

Section: 01.02 Earth's Age and Time

Topic: Earth's Age and Time

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

78) The location of the Prime Meridian is an arbitrary choice.

Answer: TRUE

Section: 01.04 Where on Earth Are You?

Topic: Where on Earth Are You?

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

79) The shortest distance between two points on Earth's surface is always along the meridian passing through them.

Answer: FALSE

Section: 01.04 Where on Earth Are You?

Topic: Where on Earth Are You?

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

80) The parallel with the largest circumference is the Equator.

Answer: TRUE

Section: 01.04 Where on Earth Are You?

Topic: Where on Earth Are You?

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

81) The age of planet Mars is _____.

A) 4 billion years

B) 4.6 billion years

C) 4.6 million years

D) 65 million years

E) 4 million years

Answer: B

Section: 01.01 Cosmic Beginnings

Topic: Cosmic Beginnings

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

82) The lunar month is defined by a period of _____ days.

A) 7.25 days

B) 27.25 days

C) 29.5 days

D) 30.5 days

E) 365.25 days

Answer: C

Section: 01.02 Earth's Age and Time

Topic: Earth's Age and Time

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

83) The Earth is closest to the Sun on what day?

- A) June Solstice
- B) June Equinox
- C) March Equinox
- D) September Equinox
- E) December Solstice

Answer: E

Section: 01.02 Earth's Age and Time

Topic: Earth's Age and Time

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

84) The Earth's axis is at an angle of _____ relative to the vertical of the plane of rotation about the Sun.

- A) 0°
- B) 13.5°
- C) 23.5°
- D) 45°
- E) 66.5°

Answer: C

Section: 01.02 Earth's Age and Time

Topic: Earth's Age and Time

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

85) During a calendar year, the Sun appears to move and stand directly above the Earth's surface between latitudes _____.

- A) 9°N and S
- B) 23.5°N and S
- C) 45°N and S
- D) 66.5°N and S
- E) 90°N and S

Answer: B

Section: 01.02 Earth's Age and Time

Topic: Earth's Age and Time

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet

86) The ground at which of the following latitudes experiences the greatest speed around the Earth's axis of rotation?

- A) 9°N
- B) 45°S
- C) 23.5°N
- D) 16°S
- E) 66.5°S

Answer: A

Section: 01.03 Earth's Shape

Topic: Earth's Shape

Bloom's: 2. Understand

Gradable: automatic

Chapter: 01 The Water Planet

87) The ground at the Earth's Equator moves about the Earth's axis of at _____.

- A) 0.1 km/h
- B) 16.7 km/h
- C) 1670 km/h
- D) 3340 km/h
- E) 3.34×10^6 km/h

Answer: C

Section: 01.03 Earth's Shape

Topic: Earth's Shape

Bloom's: 3. Apply

Gradable: automatic

Chapter: 01 The Water Planet

88) Given an approximate ocean water volume of 1.4×10^9 km³ and a rate of input/output of 320×10^3 km³/y, the residence time of water in the ocean is _____.

- A) 2 hours
- B) 2 months
- C) 2286 years
- D) 4375 years
- E) 2×10^6 years

Answer: D

Section: 01.06 Earth Is a Water Planet

Topic: Earth Is a Water Planet

Bloom's: 3. Apply

Gradable: automatic

Chapter: 01 The Water Planet

89) Given an approximate ocean surface area of $362 \times 10^6 \text{ km}^2$, how much water must melt from the glaciers and ice caps to result in a 3-meter sea-level rise?

- A) $1.09 \times 10^3 \text{ km}^3$
- B) $3.62 \times 10^3 \text{ km}^3$
- C) $1.09 \times 10^6 \text{ km}^3$
- D) $3.62 \times 10^6 \text{ km}^3$
- E) $1.09 \times 10^9 \text{ km}^3$

Answer: C

Section: 01.06 Earth Is a Water Planet

Topic: Earth Is a Water Planet

Bloom's: 2. Understand

Gradable: automatic

Chapter: 01 The Water Planet

90) Which marine water body connects directly the Arctic Ocean and the Southern Ocean?

- A) Pacific Ocean
- B) Atlantic Ocean
- C) Indian Ocean
- D) Mediterranean Sea
- E) Sea of Azov

Answer: B

Section: 01.06 Earth Is a Water Planet

Topic: Earth Is a Water Planet

Bloom's: 1. Remember

Gradable: automatic

Chapter: 01 The Water Planet